

FOR CONTRACT NO.: 07-1W5304

INFORMATION HANDOUT

MATERIALS INFORMATION

GEOTECHNICAL DESIGN REPORT

ROUTE: 23,34-VEN-Var

State of California
Agency

Business, Transportation and Housing

M e m o r a n d u m

*Flex your power!
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To: Mr. Shafiqul Islam
Senior Transportation Engineer
D07-Office of Maintenance Engineering

Date: June 3, 2011

File: 07-VEN-23-PM 6.01
Proj. No. 0700020865
Two Sinkholes

Attn: Mrs. Rania Wassily

From: **DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Geotechnical Services
Office of Geotechnical Design South 1
Branch D

Subject: Geotechnical Design Recommendations for Two Sinkholes adjacent to Southbound Route 23 Avenida De Los Arboles Off-Ramp

Based on D07-Office of Maintenance Engineering request, the Office of Geotechnical Design South1 (OGDS1) representatives visited the subject site to observe two sinkholes located in the gore area east of the Avenida De Los Arboles Off-Ramp, southbound Route 23 (Post Mile 6.01) on May 19, 2011.

Sinkhole No. 1 is approximately 20 by 20 feet wide and 7 feet deep and is located adjacent to an existing grate/inlet. Sinkhole No. 2 is approximately 30 by 30 feet wide with variable depth up to 8 feet and is located about 50 feet north of the first sinkhole. These two sinkholes are located from 30 to 40 feet east of Avenida De Los Arboles Off-Ramp shoulder (between the Off-Ramp and southbound Route 23). The on-site soil consists of predominantly silty sand and sandy silt.

Based on the As-Built utility plan (approved October 30, 1967) provided to OGDS1 by D07 Office of Maintenance Engineering, a corrugated metal pipe (CMP) culvert is located near the subject sinkholes and parallels to Avenida De Los Arboles Off-Ramp.

OGDS1 considers these two sinkholes were at least partially developed due to burrowing animal activity in the area and excessive runoff due to heavy rain and saturation of the ground. On site soil may also have been washed out in the existing CMP culvert.

Recommendations

1. The condition and integrity of the nearby CMP culvert needs to be checked by District Maintenance Engineering to inspect damage to the pipe and any separation at the joints.
2. After the condition of CMP culvert is checked and repaired, OGDS1 recommends removing loose material from sinkholes and backfilling it with gravel or gravel-size crushed rock. This would prevent further burrowing by animals.

Mr. Shafiqul Islam
June 3, 2011
Page 2

07-VEN-23-PM 6.01
Proj. No. 0700020865

3. A representative of OGDS1 needs to be present at the site to provide direction on excavation and backfilling of the sinkholes.

If you have any questions and/or further assistance is required please contact Kevin Lai at (213) 620-2344 or Shiva Karimi at (213) 620-2146.

Prepared by: Date: 6/3/11

Supervised by: Date: 6/3/11



P Shiva



Kevin Lai
Transportation Engineer
Office of Geotechnical Design South 1
Branch D

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Attachments: Figure 1 and Figure 2

cc:

District R.E Pending file		TBD
GS Corporate	Mark Willian	Mark_Willian@dot.ca.gov
District 07 Materials Engineer	Kristen Stahl	Kristeen_Stahl @dot.ca.gov

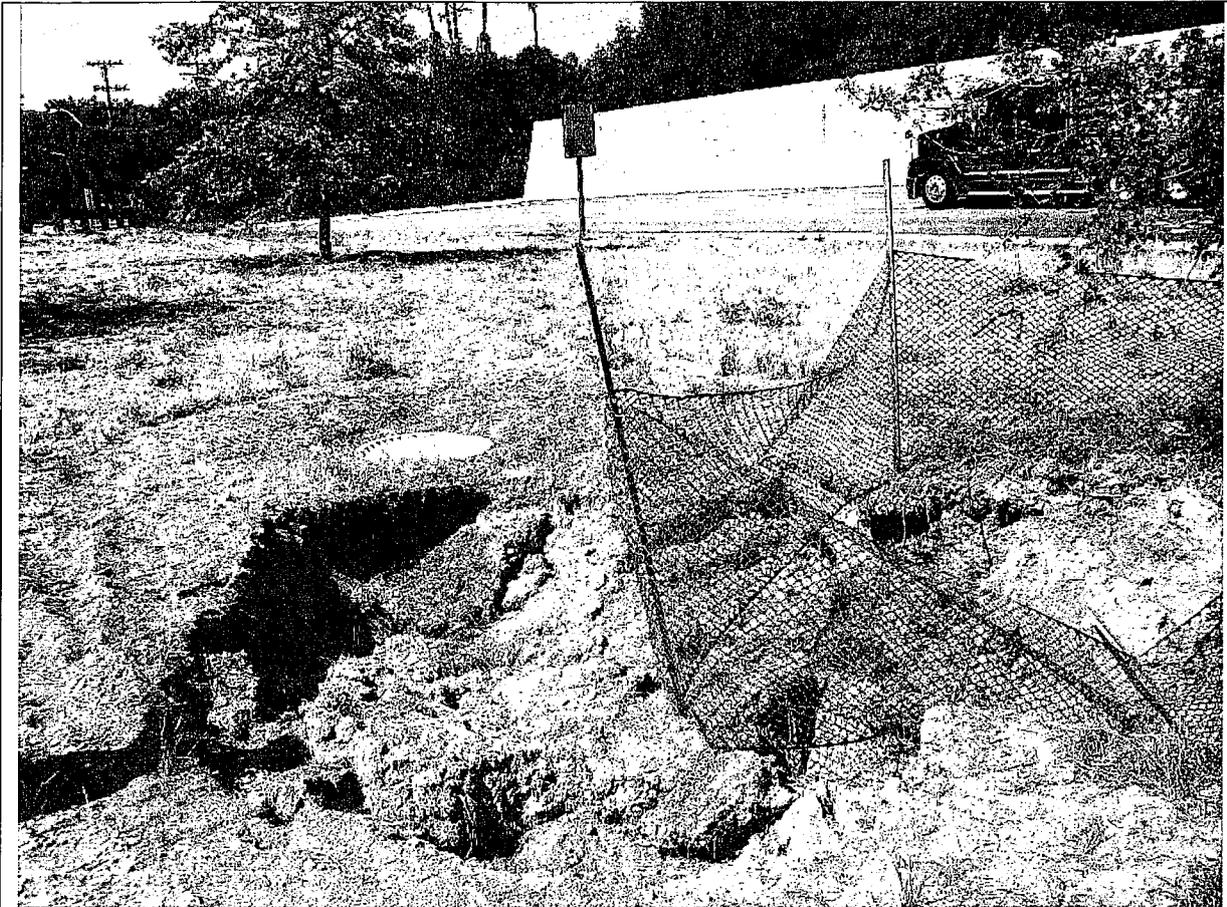


Figure 1 : 07-VEN-23 PM6.01 Sinkhole No.1

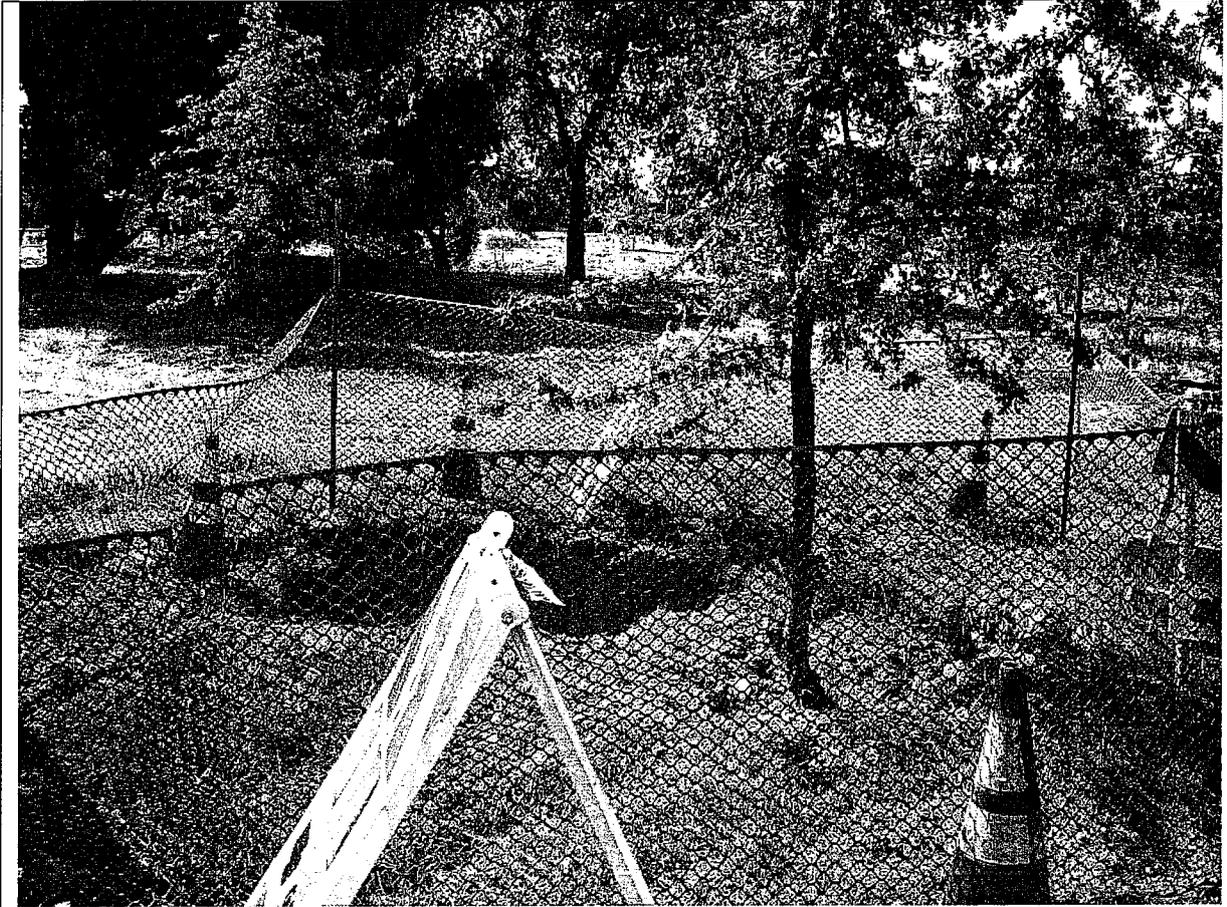


Figure 2 : 07-VEN-23 PM6.01 Sinkhole No.2